Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Original) A magnetic resonance imaging or optical imaging prodrug contrast agent having a lower affinity for a tissue protein than a bioactivated form of the contrast agent.

2. (Original) The prodrug contrast agent according to claim 1 comprising: a) an image-enhancing moiety (IEM); b) a protein binding moiety (PBM); and c) a modification site (MS).

3. (Original) The prodrug contrast agent according to claim 2, wherein the IEM comprises one member selected from the group consisting of organic molecules, metal ions, salts and chelates, clusters, particles, labeled peptides, labeled proteins, labeled polymers, labeled liposomes, organic dyes and inorganic dyes.

4. (Original) The optical imaging prodrug contrast agent according to claim 2, wherein the IEM comprises a physiologically compatible chelate comprising at least one cyclic or acyclic organic chelating agent complexed to one or more metal ions with atomic numbers 13, 21-34, 39-42, 44-50, or 57-83.

5. (Original) The prodrug contrast agent according to claim 2, wherein the IEM comprises a luminescent metal complex.

6. (Original) The prodrug contrast agent according to claim 2 wherein the IEM comprises an iron particle or metal chelate of high magnetic susceptibility.

7. (Cancelled)

8. (Original) The prodrug contrast agent according to claim 7, wherein the paramagnetic metal ion is selected from the group consisting of Gd(III), Fe(III), Mn(II), Mn(III), Cr(III), Cu(II), Dy(III), Tb(III), Ho(III), Er(III) and Eu(III).

9. (Original) The prodrug contrast agent according to claim 8, wherein the paramagnetic metal ion is Gd(III).

10. (Original) The prodrug contrast agent according to claim 4 or 7, wherein the metal chelate has a formation constant of greater than about 10.sup.10 M.sup.-1.

11. (Original) The prodrug contrast agent according to claim 10, wherein the metal chelate has a formation constant of greater than about 10.sup.15 M.sup.1.

12. (Original) The prodrug contrast agent according to claim 11, wherein the metal chelate has a formation constant of greater than about 10.sup.20 M.sup.-1.

13. (Original) The prodrug contrast agent according to claim 9 wherein the chelating agent is selected from the group consisting of DTPA, DOTA, DTPA-BMA and HP DO3A.

14. (Original) The prodrug contrast agent according to claim 2, wherein the PBM is selected from the group consisting of drugs, lipophilic and amphiphilic organic molecules, porphyrins, receptor ligands, steroids, lipids, hormones, peptides, proteins, oligonucleotides and antibodies.

15. (Original) The prodrug contrast agent according to claim 2 having a lower affinity for more than one tissue protein than a bioactivated form of the contract agent.

16. (Original) The prodrug contrast agent according to claim 2 having a lower affinity for a protein from plasma, interstitial space of a tissue, synovial fluid cerebral spinal fluid, inflammatory fluid, abcess fluid, or intracellular space than a bioactivated form of the contrast agent.

17. (Original) The prodrug contrast agent according to claim 16, having a lower affinity than a bioactivated form of the contrast agent for a protein selected from the group consisting of human serum albumin, fatty acid binding protein, glutathione-S-transferase, alpha 1-acid glycoprotein, lipoproteins, structural proteins of the extracellular matrix, amyloid, ceroid, and glycoproteins.

18. (Original) The prodrug contrast agent according to claim 17, wherein the protein is an alpha 1-acid glycoprotein.

19. (Original) The prodrug contrast agent according to claim 17 wherein the protein is selected from the group consisting of human serum albumin, fatty acid binding protein and glutathione-S-transferase.

20. (Original) The prodrug contrast agent according to claim 19, wherein the protein is human serum albumin.

21. (Original) The prodrug contrast agent according to claim 20, wherein the PBM of the bioactivated contrast agent has a log P contribution of from about to 2.0 to about 7.0.

22-66. (Cancelled)